

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

PRICE RISK MANAGEMENT
NOTICE OF INQUIRY

D.T.E. 01-100

INITIAL COMMENTS OF BAY STATE GAS COMPANY

January 14, 2002

TABLE OF CONTENTS

I.	EXECUTIVE SUMMARY OF COMMENTS	1
II.	COMMENTS IN RESPONSE TO SPECIFIC QUESTIONS	4
1.	Should Massachusetts gas utilities be allowed or required to implement a risk management program to mitigate price volatility for gas customers?	4

2.	How will risk management by LDCs affect gas unbundling and customer choice in Massachusetts?	6
3.	Should gas utilities be limited to specific types of risk management instruments? If so, what types?	8
4.	Should there be a percentage volume of gas that LDCs would be allowed to hedge?	10
5.	What should the core objectives of a hedging program be (e.g., least cost, price stability)?.....	11
6.	How will the Department assess risk management programs? What benchmarks should be used to measure a risk management program's performance?	12
7.	What standard of review should the Department apply to the utilities' initial risk management program?	13
8.	What types of costs are associated with risk management? Should LDCs be allowed to recover these costs? If so, please explain how.	14
9.	Should an incentive mechanism be used in conjunction with a risk management program? If so, please explain how this mechanism should be structured.	15

I. EXECUTIVE SUMMARY OF COMMENTS

Bay State Gas Company (“Bay State” or the “Company”) appreciates the opportunity to submit these comments in response to the Department’s December 4, 2001 Notice of Inquiry to investigate the appropriateness of the use of risk management techniques to mitigate natural gas price volatility (“Risk Management NOI”). Bay State commends the Department for conducting an examination of this issue in view of 1) increased volatility in wholesale gas markets, and 2) prevalent use of financial tools to manage increased levels of price risk by market participants. Natural gas markets have undergone dramatic transformation since wellhead prices were first deregulated twenty-five years ago. Although these changes brought substantial benefits to retail consumers, the question of whether more can and should be done to reduce exposure to sometimes volatile wholesale prices is ripe for investigation by the Department. Other jurisdictions are taking a careful look at this issue as well, especially as a result of the undesirable impact of last year’s run-up in commodity gas prices.

As outlined in these comments, Bay State advocates the use of financial risk management tools by gas utilities to stabilize prices for their consumers. Specifically, Bay State recommends that the Department approve utility-specific hedging programs that meet established criteria and minimize the price risk that consumers are currently exposed to. Bay State does not recommend that the Department mandate hedging programs at this time; however, utilities that choose not to undertake the development of a hedging program should explain to the Department why one is not in the best interests of their customers. While risk management techniques may be employed to manage all types of price risk, Bay State recommends that the hedging programs implemented for the purpose of mitigating price volatility should focus solely on achieving the objective of price stability.

Price volatility in wholesale markets has an undesirable economic impact on retail gas consumers. For instance, as commodity prices rose three and four-fold last winter, Bay State's customers were faced with substantial CGA price increases even as approximately \$11 million of gas costs were deferred to a future recovery period in order to mitigate the impact. Many customers value the benefits of price stability, and without any mitigation program in place, continue to be exposed to price risks today. Given the widespread availability and use of financial risk management tools to mitigate the price risk in natural gas markets, gas utility customers deserve to benefit from an appropriately designed and implemented hedging program. Bay State's largest customers already enjoy options to lock-in their price with competitive suppliers; however, suppliers are not actively offering similar services to smaller customers that comprise most of the Company's customer base. While competition for smaller customers may be more robust at a later period in time, a gas cost hedging program would provide important price stabilization benefits in the interim.

Bay State recommends that the Department establish procedures that would allow gas utilities to petition for approval of a hedging plan that would mitigate price risks for customers. It would be difficult or impossible to establish a common program applicable to all utilities given the disparities in customer base, resource portfolio and management experience using the many types of tools that could stabilize portfolio costs. Moreover, hedging price risk may not be appropriate for all utilities for reasons that might include small size. Therefore, the Department should establish appropriate general guidelines that set forth the minimum requirements of a hedging program and evaluate individual programs on a case-by-case basis. The Department's review can be streamlined by setting forth the standard of review that will be applied to its examination of future hedging programs as well as establishing specific filing requirements for

any utility that desires to make such a filing. Bay State offers specific recommendations concerning the standard of review the Department should apply, and on the elements of future hedging program filings in response to the Department's specific questions contained in the Risk Management NOI.

Lastly, the Department should adopt appropriate criteria for evaluating the success of various elements of a utility's hedging program, in order that improvements may be made over time. The performance assessment should focus on whether the utility implemented the hedging plan in a manner consistent with approved guidelines, and whether this resulted in the appropriate level of price stability. Although the Department may wish to compare prices paid by consumers under a hedging program to what they would have paid at market prices, this is not an appropriate benchmark for evaluating performance. Prices paid under a price risk management program will be above market prices at times, and below market prices at other times, as the objective of mitigating volatility is pursued.

II. COMMENTS IN RESPONSE TO SPECIFIC QUESTIONS

Bay State submits responses to the Department's questions concerning the use of risk management techniques to mitigate natural gas price volatility. The Department's questions properly address policy and implementation issues associated with the potential development of price risk management programs. Bay State's responses, together with comments presented in the foregoing Executive Summary, set forth the Company's views on the benefits of a price risk management program for its customers, and an appropriate means of initially implementing such a program.

1. Should Massachusetts gas utilities be allowed or required to implement a risk management program to mitigate price volatility for gas customers?

Bay State recommends that the Department allow each Massachusetts gas utility to design and implement an appropriate hedging program in order to mitigate the undesirable impacts of volatile gas prices. Natural gas physical and financial markets have undergone dramatic transformation over the past twenty-five years, changing virtually every aspect of how gas is bought and sold. Among the outcomes of this industry evolution is an increase in the volatility of natural gas commodity markets, as various short and long-term market influences affect cash and futures markets prices. The broadly-accepted risk management tools available to market participants, including gas utilities, provide an excellent means of limiting price volatility for retail customers and should be allowed by the Department.

The experience of last winter demonstrates the need to limit the impact of dramatic wholesale price spikes upon the energy costs paid by residential, and even commercial and industrial consumers. A suitable hedging plan crafted and put in place prior to the next price spike offers advantages compared with the use of retail price caps and significant gas cost

deferrals utilized in many states last year, including in Massachusetts. One obvious advantage is that customers would not only be shielded from higher prices, but would not be required to eventually pay the deferred costs, plus accrued interest. Another advantage is that customers receive more accurate price signals, both during and after a price run-up, than compared with an approach that relies on cost deferrals to achieve the desired level of price stability. Lastly, many hedging techniques provide unlimited upside price mitigation, while deferral approaches are limited by the practical ability to finance the deferred costs. The importance of these potential benefits is heightened for temperature-sensitive customers whose prices often rise at the same time as usage increases in response to colder-than-normal weather conditions.

Bay State possesses the necessary gas procurement and trading expertise and is well-positioned to utilize the necessary risk management tools to best provide price stability to its sales customers. Other gas utilities likely also possess such expertise, or could easily partner with an entity to meet the requirements of a successful risk management program.

Bay State believes that the Department should issue guidelines that provide for utilities to file a hedging program for approval. The guidelines should be broad and specify the general parameters that should be addressed in subsequent filings by gas utilities. These parameters would include a description of the program's objectives, desired level of price risk management, allowable financial instruments, audit controls and proposed reporting requirements. In the absence of issuing any guidelines in this docket, the Department should entertain individual utility filings to establish a hedging program as was done by Bay State in Docket No. D.T.E. 99-64. Bay State urges the Department not to adopt a policy that discourages hedging, as this may send the wrong signal to market participants, especially given ongoing market changes, the outcome of which is difficult to predict.

Differences among each of the Commonwealth's gas utilities indicate that adopting a mandatory hedging requirement may not be in the best interests of all gas consumers. In particular, differences in size, resource portfolio composition and management expertise with financial hedging among gas utilities will bear upon the effectiveness of using hedging techniques to achieve greater price stability. If the Department institutes a voluntary program as advocated by Bay State, it should expect any utility without a hedging program to explain why hedging commodity supplies is not in the best interests of its customers

2. How will risk-management by LDCs affect gas unbundling and customer choice in Massachusetts?

The Department's consideration of the impact of hedging programs on other important policy goals, including the promotion of competitive retail markets, is appropriate. Price stability should not be pursued at the expense of other important programs, such as providing customers with choice. At the same time, it is unreasonable to deny customers the benefits of price stability because it might be perceived to negatively affect customer choice programs. Bay State believes that customers should have the opportunity to benefit from both, which simply requires achieving the appropriate balance among important policy goals. Bay State believes that it is possible to develop appropriately targeted price stability programs that could coexist with the current customer choice programs.

Competitive retail suppliers in many cases will offer fixed-price contracts to potential customers, which would result in price stability. During the run-up in energy prices last year, many oil consumers chose to lock-in their prices with suppliers, while others have chosen to do so this year to avoid a recurrence of last year's negative experience. In theory, gas customers should have been able to take similar actions to protect themselves. In practice, however,

competitive retail suppliers are not offering service to small volume gas customers leaving them exposed to price risk, while larger customers are able to minimize their own exposure.

Bay State believes that the Department should favor the use of hedging programs that could avoid a repeat of last year's experience for gas consumers. The use of retail price caps and gas cost deferrals have a potentially more significant negative impact on customer choice programs than do the use of risk management tools that would limit the exposure of customers that are served by the utility. This is primarily due to the inaccurate price signals customers receive as deferrals build up and as they are subsequently paid down. Prior period under or over-recoveries lead to inappropriate, or misleading indicators for customers to take unbundled service, or conversely to take bundled sales service when they otherwise would opt for the other service.

A price risk mitigation program should extend price stability benefits first and foremost to those customers that are not able to obtain them from competitive suppliers. In today's marketplace, this is the residential and small commercial customers, which comprise a significant portion of the Company's customer base. Instituting a hedging program for remaining sales customers should not be an impediment to the development of retail customer choice, so long as customers are not restricted from selecting a competitive supplier by tariff terms associated with the hedging program. One way that a hedging program fosters the development of competitive retail markets is that the resulting utility price would be more predictable. More predictable utility pricing provides competitive suppliers with opportunities to offer important benefits to customers such as guaranteed savings.

Some parties may suggest that competitive suppliers alone should be the ones to offer price stability to customers through fixed-price offerings. The problem with this approach is that

the majority of customers are not able to obtain price stability in the competitive marketplace, as was evident by customers' frustration with rising prices last year. Captive customers should not be held hostage while waiting for promises of future price stability benefits to be realized. Price stability can be provided to all gas customers today. In the absence of robust competition, gas utilities are uniquely positioned to provide this price stability to smaller consumers.

**3. Should gas utilities be limited to specific types of risk-management instruments?
If so, what types?**

Establishing parameters that address what types of risk management tools may be utilized by each gas utility to hedge supplies is important. However, the allowable instruments must be established on an utility-specific basis. Today's financial markets, including those operated by the New York Mercantile Exchange ("NYMEX"), allow market participants to hedge price risks in many ways. Financial products run the gamut from simple futures and options contracts to more complex derivatives that enable market participants to hedge all forms of market risks. An individual tool may be appropriate for one gas utility, while at the same time may be too complex for another.

A natural gas futures contract entails an agreement by parties to buy or sell a specific volume of natural gas, at a specific price, at a specific location, at a specific date in the future. Natural gas futures contracts are traded on the NYMEX, which is the world's largest physical commodities exchange. Futures contracts trade in contract quantities of 10,000 MMBtu for delivery at the Henry Hub in Louisiana ratably over the course of the month. Futures contracts trade for the forward 72 months, however, trading in the near months is much more active than the outer months. Since their introduction by NYMEX in April 1990, natural gas futures contracts fostered the creation of a dynamic spot market for natural gas and have become the

standard benchmark, or index, used to establish the price in longer-term natural gas purchase contracts. Since the beginning, however, natural gas has been one of the more price-sensitive commodities traded on the NYMEX.

An options contract provides the buyer with the right, but not the obligation to either buy (call option) or sell (put option) a futures contract at a specific price (strike price) within a specific time period. Sellers of options contracts are obligated to enter into the underlying futures contract if the buyer exercises its option, and therefore collect a premium in return for entering into this obligation. Options contracts are traded on the NYMEX and over-the-counter exchanges. Options strategies may combine multiple contracts to achieve the desired price protection at an acceptable premium cost. One such strategy is an options collar, which entails the purchase of a call option at one price and the simultaneous sale of a put option at a lower price. The result is that the total price paid will fall between the strike prices of the two options.

Bay State recommends that the allowable financial instruments of a price risk management program be one of the predefined elements of each gas utility's program to ensure that the utility and the Department have a common understanding of how the hedging plan will be implemented. The financial tools should be limited to more simple contracts for gas utilities with more limited experience and expertise, and subsequently expanded as necessary if the utility's management and the Department are comfortable doing so. The Department should consider changes to the allowable risk management tools as part of an annual review of the utility's price risk management program.

4. Should there be a percentage volume of gas that LDCs would be allowed to hedge?

Yes. The degree of price stability desired should be established in advance of implementing a hedging program. The Department should establish minimum and also maximum volumes to be hedged for each month that take into consideration the operating characteristics of the utility. Initially, the minimum and maximum volumes could be close in proximity to one another, providing little discretion for the utility; however, discretion could be expanded over time, allowing the utility to hedge a portion of its requirements based on opportunities in the marketplace. Equally important to establishing overall volume parameters is determining the timing for when hedges will be entered into. Again, Bay State recommends that the criteria for the timing of hedges also be established in advance. One approach is to enter into contracts to hedge an equal portion of an individual month's requirements in each of the prior twelve months. This is similar to the concept of dollar-cost-averaging used by investors, and ensures that hedges reflect market conditions over a long period of time.

The volume of supply also needs to take into consideration the unique attributes of the gas utility's resources and requirements. Bay State would recommend that hedged volumes be limited to the total sales requirements under warmer-than-normal weather, so that financial positions never exceed physical requirements. In addition, the impact of other hedging vehicles, such as traditional storage resources, should be weighed when considering the volume of supply to be hedged. All of these factors indicate that the quantity of supply that is hedged should be established on a utility-specific basis.

5. What should the core objectives of a hedging program be (e.g., least cost, price stability)?

In order for a hedging program to be successful, it must be designed upon a clearly-stated objective or set of objectives. As noted by the Department in its Risk Management NOI, it initiated this proceeding “to investigate the appropriateness of the use of risk-management techniques to mitigate natural gas price volatility”. The core objective of a hedging program of this nature should be to stabilize prices, or in the alternative to cap prices so as to limit consumer financial risks associated with volatile market prices. Price stabilization achieved through an appropriate hedging program limits consumers’ exposure to fluctuating wholesale market prices, achieving the desired level of mitigation of price volatility. Price stabilization can be achieved without compromising Bay State’s pursuit of other critical portfolio goals including reliability, diversity and flexibility.

On the other hand, establishing disparate pricing or cost objectives will lead to difficulties in designing and implementing a program to achieve the objectives. While achieving least costs is an important portfolio objective, it will create tension with the objective of stabilizing prices at times. Arriving at the appropriate tradeoffs between price stability and least costs would be somewhat subjective, if the goals are pursued pursuant to a single program. Therefore, Bay State recommends that hedging programs designed to mitigate price volatility should remain focused on the sole objective of price stability.

It is quite possible for a price stability program to exist within the overall portfolio goal of minimizing costs, even as the hedging program designed to achieve price stability is implemented and administered on a stand-alone basis. A separate program designed to lower gas costs could be implemented at the same time as a hedging program focused on price stability. Bay State’s proposed gas cost incentive mechanism, currently pending before the Department in

Docket No. D.T.E. 01-81, would provide Bay State with incentives to lower costs for customers using some of the same hedging techniques as would be used in a price stability program.

However, maintaining distinct programs ensures that the distinct objectives associated with each program receive appropriate emphasis. Moreover, separate programs ensure that the utility's performance under each can be reviewed by the Department and other interested parties.

6. How will the Department assess risk-management programs? What benchmarks should be used to measure a risk-management program's performance?

The ongoing review of the success of a price risk management program would be directly linked to the program's objectives and the associated implementation plan. Prior to embarking on a hedging program, the utility should consult with the Department, or if desired by the Department, obtain its approval of the specific hedging program goals and the implementation plan. The implementation plan would likely cover an annual period and would address the parameters of the program including minimum and maximum volumes, timing for entering hedges, allowable financial instruments and transaction costs, internal management oversight and controls, anticipated administrative costs and required periodic reporting to the Department.

The program objectives and implementation plan would provide the basis for determining measurable performance criteria to evaluate the utility's performance under the program. The evaluation criteria should assess at a minimum whether the utility entered into hedges consistent with the timing and volume parameters established for the program. To the extent that discretion was afforded to the utility under the program, the Department should assess whether the utility exercised its discretion in a prudent manner, based on the facts and circumstances that were known at the time discretionary hedging decisions were made.

Performance should not be measured using market prices as benchmarks. For instance, judging the success of the program on whether the prices achieved under the program beat market prices would not be a reasonable performance standard. This approach is inconsistent with the objective of achieving stable prices, which seeks to avoid the volatility inherent in current market prices. Finally, benchmarking past decisions to hedge supplies against current market prices relies on information that could not be known at the time the decisions were made, which represents an unattainable prudence standard.

7. What standard of review should the Department apply to the utilities' initial risk-management program?

Bay State recommends that the Department review hedging plans based on seven criteria. These criteria will ensure that any hedging plan that is implemented meets minimum requirements that are appropriate for the Department to establish. Establishing review standards in advance of any utility filings will streamline the review and processing of individual price stabilization plans. The recommended criteria are:

- ~~///~~ Is the program consistent with all general price risk management guidelines established by the Department?
- ~~///~~ Will the program achieve the desired level of price risk management?
- ~~///~~ Are the program costs reasonable in view of the anticipated benefits?
- ~~///~~ Is the program consistent with the utility's sales requirements and resource portfolio?
- ~~///~~ Is the program consistent with the utility's experience and expertise with price risk management techniques?
- ~~///~~ Has the utility established management oversight and auditing controls?
- ~~///~~ Does the program allow for adequate assessment of performance including appropriate reporting?

8. What types of costs are associated with risk-management? Should LDCs be allowed to recover these costs? If so, please explain how.

There are two types of costs that a utility will incur associated with the implementation of a price risk management hedging program. The first category includes operating costs associated with establishing and supporting the systems and processes needed to ensure the program's success. The second category are costs that the utility will incur when it enters or exits hedge positions. Bay State recommends different treatment for these two categories of costs.

Costs incurred by utilities associated with administering a hedging program would include incremental costs incurred to implement the program as well as ongoing operating costs. To the extent that the Department adopts guidelines concerning hedging programs, it should establish a common treatment of administrative costs for all utilities in the Commonwealth. If the Department requires each utility to adopt a hedging program, it should at the same time provide for a recovery mechanism to collect the associated utility costs that are incurred on a current basis. If on the other hand, the Department allows utilities to develop a hedging program on a voluntary basis, each utility should be permitted to petition the Department for appropriate cost recovery of administrative costs as a component of its overall program.

The second type of costs that utilities will incur are transaction costs and premiums at the time a hedge position is entered or exited. Transaction costs are incurred when a futures or options contract is bought or sold, and are analogous to the costs an individual would incur when buying or selling a security. These costs are paid to the broker or trader who handles the transaction, and include commissions and fees paid to the associated exchanges. Transaction costs for NYMEX trades are typically less than \$15 per contract traded, or approximately \$.0015 per MMBtu. In addition to transaction costs, the utility would pay or receive a premium on all options contracts. Options premiums are akin to insurance payments and compensate the seller

for the price risk associated with selling the option. The level of premium depends on the option strike price, the current value and volatility of the underlying contract, e.g. futures contract. Bay State recommends that transaction costs and options premiums be recovered on a current basis in a manner similar to gas costs. The Department could establish a limit on the total annual transaction costs to be incurred by the utility, however, any limit would affect the degree of price stability that can be achieved.

While a price risk management program stabilizes prices it will not lead to lower prices over time. Price stabilization necessarily smoothes out the impact of volatility in the marketplace, which can be expected to result in reducing prices when the market spikes and increasing prices when the market declines. Over long periods of time, the impact on total prices paid should be limited as these influences can be expected to even out. However, the transaction costs incurred to achieve the stability can be expected to add a small amount to the total price paid by consumers.

9. Should an incentive mechanism be used in conjunction with a risk-management program? If so, please explain how this mechanism should be structured.

Bay State does not recommend establishing an incentive mechanism as part of a price risk management program. As stated previously, Bay State recommends that the hedging parameters established for a new program be established in a manner that limits discretion on the part of the utility. Under this type of program, utilities will execute the plan using tools that are readily available in the marketplace in order to achieve the desired level of price stability. Over time, additional discretion could be afforded to the utility to achieve price stability. However, incentive mechanisms are more appropriately associated with programs with the objective of lowering costs or increasing service quality. A price risk management program with a core

objective of stabilizing prices is not well suited for an incentive mechanism. Nevertheless, a price risk management program without any incentive can operate in conjunction with an incentive mechanism designed to lower costs. All that is necessary is to establish the appropriate volumes or resources to be covered under the price risk management program at the time it is approved.

On October 26, 2001, Bay State filed an incentive-based gas purchasing program with the Department. The gas cost incentive mechanism (“GCIM”) pending in Docket No. D.T.E. 01-81 is designed to achieve a different objective than price stability, namely lowering gas commodity costs for consumers. Bay State’s GCIM would utilize a combination of physical and financial purchasing strategies to achieve this objective. Under the GCIM, Bay State might even buy and sell the same type of futures and options contracts that would be used under a hedging program to achieve price stability. This reflects the broad acceptance and importance of financial markets to managing costs and risks in the restructured marketplace. If Bay State were to implement both a price stabilization program and its proposed GCIM, the associated positions and resulting costs would be accounted for and tracked separately. This would enable Bay State to appropriately pursue both objectives and allow the Department to accurately review Bay State’s performance under each of the programs.